

ADMINISTRATOR'S FACT BOOK

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Introduction — Acting Administrator Daniel K. Elwell





"If you can't measure it, you can't improve it."

It is hard to argue the point.

We are in the safest period in the history of aviation. The "Fact Book" is a page-by-page compendium of who we are and what we do. Without question, the FAA manages the most complex aviation system on the planet. Approaching a billion passengers. Thousands of pieces of equipment and facilities. And an elite corps of professionals to manage all of it.

The National Airspace System is a national treasure—a dynamic organism that's constantly evolving. Knowing the precise areas experiencing air traffic growth can lead to a greater focus on implementing new technologies, reexamining resources and sharpening infrastructure requirements. Each of these has a vital role in the FAA's primary mission: safety. This booklet enables you to connect the dots.

Dan Elwell

Acting Administrator
Federal Aviation Administration

FAA Mission and Vision



FAA Mission

To provide the safest, most efficient aerospace system in the world.

FAA Vision

We strive to reach the next level of safety, efficiency, environmental responsibility and global leadership. We are accountable to the American public and our stakeholders.

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Safety

Accidents, 2006-2015

Calendar Year	Fatal	Total
2006	2	33
2007	1	28
2008	2	27
2009	2	30
2010	1	30
2011	0	33
2012	0	26
2013	2	23
2014	0	32
2015	0	30

Source: National Transportation Safety Board (NTSB)

Accident Rates, 2006-2015

Calendar Year	Accidents per 100,000 Departures	Accidents per 100,000 Flight Hours
2006	0.304964968	0.171311021
2007	0.256212419	0.142585634
2008	0.258419375	0.141163436
2009	0.309117227	0.170195075
2010	0.311402113	0.169004696
2011	0.344325777	0.183711319
2012	0.276870318	0.14670835
2013	0.247760301	0.129811806
2014	0.347507966	0.180261115
2015	0.328780274	0.167330868

Source: National Transportation Safety Board (NTSB)

Flight Hours, 2006-2015

Flight Hours (100,000s)
192.63209
196.37322
191.26766
176.26832
177.50986
179.62965
177.22236
177.17957
177.52026
179.28551

Source: National Transportation Safety Board (NTSB)

Since March 20, 1997, aircraft with 10 or more seats used in scheduled passenger service have operated under Title 14 Code of Federal Regulations (CFR) 121.

Description of Air Traffic Incident Data

System Risk Event Rate: a 12-month rolling rate that compares the number of Risk Analysis Events (RAEs are events in which less than 66 percent of the required separation between aircraft was maintained) with the total number of validated losses of standard separation. Significantly improved data collection has led to an increase in reported events and RAEs since 2012. The total number of high-risk events remains low.

Runway incursions: the four categories (A, B, C or D) are based on defined criteria, including speed and the type and extent of any evasive action. Category A and B events are considered to have elevated risk.

Runway incursions are also classified by type: 1) pilot actions, measured as Pilot Deviations; 2) Air Traffic Control (ATC) actions, measured as Operational Incidents, and 3) actions by individuals driving or working in the vicinity of taxiways and runways, measured as Vehicle/Pedestrian Deviations.

Near Mid Air Collision (NMAC): when an aircraft flies within 500 feet of another aircraft, or a pilot or flight crew member reports a collision hazard between two or more aircraft.

Airspace Incident Data

Incident Type	Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
Near Mid-air Collision	2013	6	7	6	4	3	14	11	13	7	12	4	8	95
	2014	6	8	12	9	15	25	17	9	15	11	7	9	143
	2015	7	10	15	8	10	16	12	28	12	5	10	12	145
	2016	17	15	13	14	30	46	37	32	26	29	28	15	302
	2017	11	27	38	29	43	67	52	47	21	27	18	5	385
Pilot Deviation	2013	228	270	262	267	268	291	310	380	299	306	267	217	3365
	2014	251	246	301	339	349	342	374	352	307	371	305	269	3806
	2015	284	297	376	339	361	362	374	341	327	302	281	243	3887
	2016	245	344	343	364	333	368	411	373	367	387	376	404	4315
	2017	328	384	394	479	504	462	469	471	404	388	367	311	4961
Runway Incursion	2013	93	94	101	92	105	131	138	110	105	110	102	86	1267
	2014	82	89	87	110	121	128	138	127	84	116	122	74	1278
	2015	118	102	121	141	108	141	149	146	120	126	126	109	1507
	2016	105	134	129	132	126	134	157	137	145	150	141	119	1609
	2017	119	113	127	155	174	160	164	157	156	138	102	79	1644
Surface Incident	2013	19	17	29	19	33	34	25	23	24	43	18	29	313
	2014	22	27	26	35	31	39	30	25	33	34	33	16	351
	2015	24	15	31	26	19	26	34	24	20	53	51	41	364
	2016	54	48	59	66	61	67	67	62	54	63	46	68	715
	2017	73	75	67	76	81	78	75	60	57	50	38	48	778

Airspace Incident Data (continued)

Incident Type	Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
Vehicle Pedestrian Deviations	2013	22	29	30	32	31	25	34	34	26	40	19	21	343
	2014	26	30	27	44	42	32	43	28	38	24	41	16	391
	2015	43	25	32	42	19	35	46	35	27	36	27	23	390
	2016	34	31	34	39	39	31	43	37	39	38	34	36	435
	2017	31	37	44	34	44	45	50	39	39	40	27	18	448
loss of Separation	2013	640	493	540	598	554	511	581	588	578	584	539	529	6735
	2014	509	517	695	747	665	602	646	647	585	615	598	640	7466
	2015	562	512	567	589	572	574	590	764	668	683	649	683	7413
	2016	637	648	813	704	838	791	753	765	696	721	657	663	8686
	2017	507	485	566	565	554	632	533	558	528	525	503	401	6357
Incident Rates	Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
High Risk Analysis Events	2013	1	2	4	4	2	7	3	5	4	4	2	3	41
System Risk Event Rate	2014	1	0	2	4	2	3	0	2	2	4	2	2	24
	2015	0	1	0	2	2	3	3	0	0	0	2	1	14
	2016	4	3	3	3	1	0	4	2	0	1	0	2	23
	2017	1	2	1	3	1	3	1	1	1	1	3	1	19
Runway Incursion Category A & B	Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
Runway Incursion Rate	2013	0	1	2	1	1	3	2	0	1	2	1	2	16
	2014	1	3	1	1	1	0	2	0	0	2	1	2	14
	2015	3	1	1	3	0	1	0	0	1	2	2	0	14
	2016	3	3	1	0	2	2	2	2	0	3	1	0	19
	2017	0	1	1	0	0	1	0	1	0	0	1	0	5

Footnotes for Data Table

Pilot-reported NMACs with Unmanned Aircraft Systems (UAS) now account for more than half of all reported events.

The Pilot Deviation (PD) table includes events that did not have a loss of standard separation. PDs with a loss of standard separation are included in the Loss of Separation table.

Loss of Separation events include incidents attributable to both pilot and air traffic controller. This table includes airborne events where the loss of standard separation criteria has been validated.

All yearly totals and rates are tabulated for calendar year comparison and do not reflect performance target reporting, which are aligned to the fiscal year (October-September).

Originating source - Comprehensive Electronic Data Analysis and Reporting (CEDAR), Operations Network (OPSNET)

Air Traffic

Total Operations* at Towers, Terminal Radar Approach Control (TRACONs) and Air Route Traffic Control Centers Facilities (ARTCCs)

Air Traffic in the NAS

	FY16	FY17	% Change
Air Traffic Control Tower (ATCT)	53,327,606	53,483,486	0.3%
Terminal Radar Approach Control Facilities (TRACON)	37,712,883	38,085,456	1.0%
Air Route Traffic Control Centers (ARTCC)	43,231,160	43,857,291	1.4%

^{*}Operations at TRACON and ARTCC facilities are also known as aircraft handled

Source: OPSNET, Office of Performance Analysis (AJR-G)

Total Operations by Air Traffic Control Tower (ATCT): Top 50

Rank	Airport Tower	Name	FY16	FY17	% Change
1	ATL	Atlanta	902,230	889,730	-1.4%
2	ORD	Chicago	874,148	860,944	-1.5%
3	LAX	Los Angeles	722,537	725,604	0.4%
4	DFW	Dallas/Fort Worth	685,309	663,717	-3.2%
5	DEN	Denver	570,395	588,251	3.1%
6	LAS	Las Vegas	559,960	572,262	2.2%
7	CLT	Charlotte	549,643	556,756	1.3%
8	EWR	Newark	536,755	519,121	-3.3%
9	JFK	JFK	480,976	474,122	-1.4%
10	SF0	San Francisco	454,565	459,855	1.2%
11	IAH	Houston	485,111	457,630	-5.7%
12	PHX	Phoenix	463,444	454,738	-1.9%
13	LGA	LaGuardia	470,885	439,157	-6.7%
14	MSP	Minneapolis	416,877	421,402	1.1%
15	MIA	Miami	429,308	421,381	-1.8%
16	SEA	Seattle	418,764	418,365	-0.1%
17	BOS	Boston	407,639	413,932	1.5%
18	DTW	Detroit	394,436	395,834	0.4%
19	DVT	Phoenix Deer Valley	374,567	384,098	2.5%
20	PHL	Philadelphia	408,697	378,230	-7.5%
21	SLC	Salt Lake City	329,875	338,977	2.8%
22	MCO	Orlando	323,836	333,262	2.9%
23	DCA	Washington	341,595	330,778	-3.2%
24	GFK	Grand Forks	321,818	325,626	1.2%
25	APA	Denver Centennial	340,606	324,002	-4.9%
26	FLL	Fort Lauderdale	303,865	322,090	6.0%
27	SNA	John Wayne	313,527	314,886	0.4%
28	LGB	Long Beach	314,194	313,033	-0.4%
29	HNL	Honolulu	307,768	312,649	1.6%
30	DAB	Daytona Beach	312,125	308,815	-1.1%

Rank	Airport Tower	Name	FY16	FY17	% Change
31	SFB	Orlando Sanford	286,491	304,078	6.1%
32	IAD	Dulles	299,210	299,553	0.1%
33	TEB	Teterboro	300,057	299,522	-0.2%
34	IWA	Phoenix/Williams Gateway	244,104	290,659	19.1%
35	TMB	Miami/Kendall-Tamiami Exec	283,701	289,197	1.9%
36	FFZ	Falcon Field	280,262	289,140	3.2%
37	ANC	Anchorage	287,432	287,450	0.0%
38	BWI	Baltimore	261,747	268,986	2.8%
39	PDX	Portland (OR)	257,792	262,989	2.0%
40	MDW	Chicago Midway	256,398	255,467	-0.4%
41	OAK	Oakland	244,792	254,090	3.8%
42	DAL	Dallas Love Field	252,572	252,507	0.0%
43	VNY	Van Nuys	232,335	245,255	5.6%
44	BNA	Nashville	226,754	243,042	7.2%
45	SEE	San Diego/Gillespie Field	222,248	238,000	7.1%
46	SAN	San Diego	229,567	236,726	3.1%
47	PRC	Prescott/E A Love Field	257,316	231,400	-10.1%
48	HW0	Hollywood/North Perry	186,131	227,557	22.3%
49	MEM	Memphis	229,274	227,303	-0.9%
50	HOU	Houston	224,730	226,592	0.8%

Source: OPSNET, Office of Performance Analysis (AJR-G)

National Airspace System (NAS) Operational Inventory

Capability	As of March 1, 2018
Automation	2,526
Communications	19,245
Environmental	24,249
Mission Support	1,970
Navigation	13,236
Power	7,486
Surveillance	2,775
Weather	2,564

 $https://employees.faa.gov/org/linebusiness/ato/operations/technical_operations/ajwl/ajwlB/fsep/\\$

Source: 2018_March_NOF.pdf

National Airspace System (NAS) On-Time Performance

Fiscal Year	NAS On-Time Performance
2015	90.7%
2016	92.0%
2017	91.9%

Percent of total flights net delays, diversions and cancellations.

Source: ASPM and ASQP, Office of Performance Analysis (AJR-G)

Total Operations* by Terminal Radar Approach Control Facilities (TRACON): Top 50

Rank	TRACON	Name	FY16	FY17	% Change
1	SCT	Southern California	2,099,756	2,176,421	3.7%
2	N90	New York	1,949,388	1,953,663	0.2%
3	NCT	Northern California	1,586,639	1,607,203	1.3%
4	PCT	Potomac	1,426,859	1,378,247	-3.4%
5	C90	Chicago	1,254,412	1,255,922	0.1%
6	D10	Dallas - Ft Worth	1,213,222	1,202,735	-0.9%
7	A80	Atlanta	1,198,348	1,193,926	-0.4%
8	MIA	Miami Tower	1,009,725	1,039,406	2.9%
9	190	Houston	913,611	903,379	-1.1%
10	D01	Denver	820,064	850,930	3.8%
11	P50	Phoenix	672,972	699,983	4.0%
12	F11	Central Florida	673,746	692,938	2.8%
13	A90	Boston	639,498	649,110	1.5%
14	CLT	Charlotte Tower	636,264	644,693	1.3%
15	L30	Las Vegas	605,514	609,118	0.6%
16	\$46	Seattle	578,654	587,978	1.6%
17	PHL	Philadelphia	574,328	549,093	-4.4%
18	M98	Minneapolis	525,247	530,741	1.0%
19	D21	Detroit	521,998	523,154	0.2%
20	TPA	Tampa Tower	456,195	475,547	4.2%
21	HCF	Honolulu Control Facility	478,441	439,192	-8.2%
22	S56	Salt Lake City	408,675	431,241	5.5%
23	PBI	Palm Beach Tower	282,212	376,185	33.3%
24	JAX	Jacksonville Tower	361,549	363,248	0.5%
25	AUS	Austin Tower	303,650	330,448	8.8%
26	CMH	Columbus Tower	325,673	329,420	1.2%
27	SAT	San Antonio Tower	318,245	327,097	2.8%
28	ZSU	San Juan CERAP	324,336	325,096	0.2%
29	T75	St Louis	313,275	322,354	2.9%
30	DAB	Daytona Beach Tower	317,406	318,404	0.3%
31	P80	Portland	312,801	312,791	0.0%
32	P31	Pensacola	292,432	298,804	2.2%
33	M03	Memphis	301,930	297,172	-1.6%
34	BNA	Nashville Tower	264,992	286,214	8.0%
35	PIT	FAA Pittsburgh ATC Tower	260,171	271,633	4.4%
36	A11	Anchorage	270,295	267,751	-0.9%
37	E10	High Desert	248,575	257,564	3.6%
38	IND	Indianapolis Tower	252,756	255,448	1.1%
39	RDU	Raleigh-Durham Tower	239,428	253,698	6.0%
40	CRP	Corpus Christi Tower	255,062	250,808	-1.7%
41	MSY	New Orleans Tower	248,248	250,068	0.7%
42	CVG	Cincinnati Tower	230,738	241,744	4.8%

Rank	TRACON	Name	FY16	FY17	% Change
43	RSW	Fort Myers Tower	225,797	236,807	4.9%
44	MKE	Milwaukee Tower	227,363	226,323	-0.5%
45	OKC	Oklahoma City Tower	222,389	221,579	-0.4%
46	SDF	Louisville Standiford Tower	208,772	219,719	5.2%
47	MCI	Kansas City Tower	211,004	214,297	1.6%
48	R90	0maha	207,577	207,429	-0.1%
49	Y90	Yankee	205,504	201,846	-1.8%
50	TUL	Tulsa	190,577	200,526	5.2%

^{*}Operations at TRACON facilities are also known as aircraft handled **Source:** OPSNET, Office of Performance Analysis (AJR-G)

Total Operations* by Air Route Traffic Control Centers (ARTCC)

ARTCC	Name	FY16	FY17
ZTL	Atlanta	3,047,184	3,101,809
ZNY	New York	2,684,769	2,706,705
ZDC	Washington	2,464,286	2,527,500
ZJX	Jacksonville	2,393,729	2,485,788
ZMA	Miami	2,546,654	2,480,528
ZAU	Chicago	2,397,472	2,422,857
ZOB	Cleveland	2,387,361	2,415,492
ZFW	Fort Worth	2,299,251	2,308,606
ZHU	Houston	2,250,837	2,250,740
ZLA	Los Angeles	2,229,653	2,240,289
ZME	Memphis	2,099,894	2,131,376
ZID	Indianapolis	2,023,298	2,068,296
ZMP	Minneapolis	1,941,944	1,977,176
ZDV	Denver	1,764,984	1,819,597
ZKC	Kansas City	1,751,235	1,792,081
ZOA	Oakland	1,640,881	1,734,144
ZAB	Alburquerque	1,564,647	1,566,140
ZBW	Boston	1,523,097	1,545,695
ZLC	Salt Lake City	1,394,441	1,429,054
ZSE	Seattle	1,173,627	1,206,438
ZAN	Anchorage	582,494	595,686
HCF	Honolulu Control Facility	489,032	471,946
ZSU	San Juan CERAP**	312,528	304,548
ZUA	Guam CERAP**	267,862	274,800

^{*}Operations at ARTCC facilities are also know as aircraft handled

Source: OPSNET, Office of Performance Analysis (AJR-G)

^{**}CERAP (Center Radar Approach Control)

Flight Service – Total Flight Services = 2 (Flight Plans + Pilot Weather Briefs) + Aircraft Contacts

						Fiscal Y	ear 2016					
CONUS** - AFSS*** Contract	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Services via Specialist	315,006	272,125	236,872	229,190	240,886	270,626	275,545	284,917	301,106	325,029	296,686	280,694
						Fiscal Y	ear 2016					
Alaska Facility	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Barrow (BRW)	5,587	2,970	3,278	3,451	3,235	3,563	3,874	4,953	4,419	5,805	6,662	6,042
Cold Bay (CDB)	2,689	1,978	2,066	2,354	1,815	1,598	2,227	3,013	2,671	2,317	3,018	2,115
Dillingham (DLG)	6,164	3,677	4,034	4,020	3,930	4,869	5,166	5,482	9,161	7,778	8,273	6,118
Kenai (ENA)	13,727	8,988	10,617	9,563	9,293	12,209	12,528	18,073	18,896	23,053	20,113	17,403
Fairbanks (FAI)	8,683	7,894	6,382	6,545	6,740	8,989	8,242	9,080	12,264	13,184	13,451	12,713
Homer (HOM)	2,642	1,828	1,882	1,844	1,740	2,346	2,718	4,145	5,770	8,091	7,922	5,228
Illiamna (ILI) *	1,977	0	0	0	0	0	0	2,342	5,552	8,470	7,504	5,772
Juneau (JNU)	6,516	5,621	5,263	5,423	5,608	6,262	5,897	8,057	10,321	11,274	11,306	9,498
Ketchikan (KTN)	4,716	3,796	3,524	2,961	3,061	4,713	5,383	11,206	17,142	21,632	22,394	10,470
McGrath (MCG) *	0	0	0	0	0	1,067	0	1,620	1,430	1,529	1,791	2,084
Nome (OME)	11,712	9,634	7,816	6,872	6,804	7,922	8,932	8,266	10,189	12,143	10,239	8,181
Northway (ORT) *	0	0	0	0	0	0	0	668	760	685	1,078	1,521
Kotzebue (OTZ)	8,026	5,764	5,377	6,160	5,727	6,151	6,338	7,557	8,011	7,058	8,091	8,644
Palmer (PAQ)	1,835	1,085	1,168	1,588	1,739	2,310	2,889	4,416	3,387	4,058	3,518	2,838
Deadhorse (SCC)	2,598	2,213	2,372	2,271	2,042	3,764	2,377	2,332	2,339	2,566	3,984	2,710
Sitka (SIT)	2,712	2,316	2,074	2,074	2,131	2,808	2,629	3,659	4,590	5,067	4,901	3,181
Talkeetna (TKA)	1,493	510	520	731	1,266	2,123	3,261	6,428	9,597	10,698	9,058	6,004
						Fiscal Y	ear 2017					
CONUS** - AFSS*** Contract	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Fiscal You	ear 2017 Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
CONUS** - AFSS*** Contract Services via Specialist	Oct-16 277,172	Nov-16 258,808	Dec-16 204,943	Jan-17 199,984	Feb-17 220,890			May-17 252,913	Jun-17 267,963	Jul-17 288,485	Aug-17 284,508	Sep-17 257,763
						Mar-17 241,289	Apr-17	-			_	-
						Mar-17 241,289	Apr-17 251,199	-			_	-
Services via Specialist	277,172	258,808	204,943	199,984	220,890	Mar-17 241,289 Fiscal Yo	Apr-17 251,199 ear 2017	252,913	267,963	288,485	284,508	257,763
Services via Specialist Alaska Facility	277,172 Oct-16	258,808 Nov-16	204,943 Dec-16	199,984 Jan-17	220,890 Feb-17	Mar-17 241,289 Fiscal You Mar-17	Apr-17 251,199 ear 2017 Apr-17	252,913 May-17	267,963 Jun-17	288,485 Jul-17	284,508 Aug-17	257,763 Sep-17
Services via Specialist Alaska Facility Barrow (BRW)	277,172 Oct-16 5,051	258,808 Nov-16 4,652	204,943 Dec-16 4,475	199,984 Jan-17 3,586	220,890 Feb-17 3,267	Mar-17 241,289 Fiscal You Mar-17 3,576	Apr-17 251,199 ear 2017 Apr-17 2,814	252,913 May-17 2,939	267,963 Jun-17 3,227	288,485 Jul-17 4,861	284,508 Aug-17 4,018	257,763 Sep-17 2,955
Services via Specialist Alaska Facility Barrow (BRW) Cold Bay (CDB)	277,172 Oct-16 5,051 1,818	258,808 Nov-16 4,652 1,514	204,943 Dec-16 4,475 1,387	199,984 Jan-17 3,586 2,204	220,890 Feb-17 3,267 1,167	Mar-17 241,289 Fiscal You Mar-17 3,576 1,366	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087	252,913 May-17 2,939 1,937	267,963 Jun-17 3,227 3,006	288,485 Jul-17 4,861 2,793	284,508 Aug-17 4,018 2,963	257,763 Sep-17 2,955 2,301
Services via Specialist Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG)	277,172 Oct-16 5,051 1,818 5,146	258,808 Nov-16 4,652 1,514 4,444	204,943 Dec-16 4,475 1,387 4,610	Jan-17 3,586 2,204 3,308	220,890 Feb-17 3,267 1,167 3,273	Mar-17 241,289 Fiscal You Mar-17 3,576 1,366 3,851	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157	252,913 May-17 2,939 1,937 5,199	267,963 Jun-17 3,227 3,006 7,243	288,485 Jul-17 4,861 2,793 7,524	284,508 Aug-17 4,018 2,963 7,576	257,763 Sep-17 2,955 2,301 5,961
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA)	277,172 Oct-16 5,051 1,818 5,146 11,602	258,808 Nov-16 4,652 1,514 4,444 11,690	204,943 Dec-16 4,475 1,387 4,610 11,498	Jan-17 3,586 2,204 3,308 10,044	220,890 Feb-17 3,267 1,167 3,273 9,586	Mar-17 241,289 Fiscal You Mar-17 3,576 1,366 3,851 10,553	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595	252,913 May-17 2,939 1,937 5,199 16,425	267,963 Jun-17 3,227 3,006 7,243 19,542	288,485 Jul-17 4,861 2,793 7,524 22,559	284,508 Aug-17 4,018 2,963 7,576 19,554	257,763 Sep-17 2,955 2,301 5,961 17,050
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI)	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196	Jan-17 3,586 2,204 3,308 10,044 5,877	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289	Mar-17 241,289 Fiscal Yo Mar-17 3,576 1,366 3,851 10,553 7,612	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069	252,913 May-17 2,939 1,937 5,199 16,425 8,135	Jun-17 3,227 3,006 7,243 19,542 10,406	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM)	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379	Jan-17 3,586 2,204 3,308 10,044 5,877 1,981	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997	Mar-17 241,289 Fiscal Yo Mar-17 3,576 1,366 3,851 10,553 7,612 2,599	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM) Illiamna (ILI) *	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928 1,455	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331 0	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379 0	Jan-17 3,586 2,204 3,308 10,044 5,877 1,981	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997 0	Mar-17 241,289 Fiscal Yo Mar-17 3,576 1,366 3,851 10,553 7,612 2,599 0	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097 0	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574 1,495	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504 5,513	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487 8,347	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501 8,202	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425 5,520
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM) Illiamna (ILI) * Juneau (JNU)	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928 1,455 7,037	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331 0 6,679	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379 0 6,012	199,984 Jan-17 3,586 2,204 3,308 10,044 5,877 1,981 0 5,734	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997 0 5,312	Mar-17 241,289 Fiscal Yo Mar-17 3,576 1,366 3,851 10,553 7,612 2,599 0 5,930	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097 0 5,577	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574 1,495 8,272	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504 5,513 9,536	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487 8,347 10,344	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501 8,202 10,646	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425 5,520 9,653
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM) Illiamna (ILI) * Juneau (JNU) Ketchikan (KTN)	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928 1,455 7,037 4,840	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331 0 6,679 3,378	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379 0 6,012 3,875	199,984 Jan-17 3,586 2,204 3,308 10,044 5,877 1,981 0 5,734 3,463	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997 0 5,312 3,364	Mar-17 241,289 Fiscal Y. Mar-17 3,576 1,366 3,851 10,553 7,612 2,599 0 5,930 3,935	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097 0 5,577 5,881	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574 1,495 8,272 11,489	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504 5,513 9,536 18,996	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487 8,347 10,344 22,761	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501 8,202 10,646 19,314	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425 5,520 9,653 12,158
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM) Illiamna (ILI) * Juneau (JNU) Ketchikan (KTN) McGrath (MCG) *	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928 1,455 7,037 4,840 0	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331 0 6,679 3,378 0	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379 0 6,012 3,875 0	199,984 Jan-17 3,586 2,204 3,308 10,044 5,877 1,981 0 5,734 3,463 0	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997 0 5,312 3,364 0	Mar-17 241,289 Fiscal Yd Mar-17 3,576 1,366 3,851 10,553 7,612 2,599 0 5,930 3,935 0	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097 0 5,577 5,881 0	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574 1,495 8,272 11,489 1,178	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504 5,513 9,536 18,996 1,902	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487 8,347 10,344 22,761 1,467	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501 8,202 10,646 19,314 1,734	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425 5,520 9,653 12,158 1,816
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM) Illiamna (ILI) * Juneau (JNU) Ketchikan (KTN) McGrath (MCG) * Nome (OME)	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928 1,455 7,037 4,840 0 9,024	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331 0 6,679 3,378 0 8,055	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379 0 6,012 3,875 0 6,766	199,984 Jan-17 3,586 2,204 3,308 10,044 5,877 1,981 0 5,734 3,463 0 8,982	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997 0 5,312 3,364 0 8,501	Mar-17 241,289 Fiscal Yo Mar-17 3,576 1,366 3,851 10,553 7,612 2,599 0 5,930 3,935 0 9,570	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097 0 5,577 5,881 0 9,219	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574 1,495 8,272 11,489 1,178 10,385	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504 5,513 9,536 18,996 1,902 11,195	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487 8,347 10,344 22,761 1,467 10,362	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501 8,202 10,646 19,314 1,734 11,782	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425 5,520 9,653 12,158 1,816 12,466
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM) Illiamna (ILI) * Juneau (JNU) Ketchikan (KTN) McGrath (MCG) * Nome (OME) Northway (ORT) *	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928 1,455 7,037 4,840 0 9,024 0	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331 0 6,679 3,378 0 8,055 0	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379 0 6,012 3,875 0 6,766 0	199,984 Jan-17 3,586 2,204 3,308 10,044 5,877 1,981 0 5,734 3,463 0 8,982 0	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997 0 5,312 3,364 0 8,501 0	Mar-17 241,289 Fiscal Yo Mar-17 3,576 1,366 3,851 10,553 7,612 2,599 0 5,930 3,935 0 9,570 0	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097 0 5,577 5,881 0 9,219 0	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574 1,495 8,272 11,489 1,178 10,385 844	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504 5,513 9,536 18,996 1,902 11,195 690	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487 8,347 10,344 22,761 1,467 10,362 697	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501 8,202 10,646 19,314 1,734 11,782 1,236	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425 5,520 9,653 12,158 1,816 12,466 1,575
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM) Illiamna (ILI) * Juneau (JNU) Ketchikan (KTN) McGrath (MCG) * Nome (OME) Northway (ORT) * Kotzebue (OTZ)	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928 1,455 7,037 4,840 0 9,024 0 6,615	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331 0 6,679 3,378 0 8,055 0 7,022	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379 0 6,012 3,875 0 6,766 0 6,628	199,984 Jan-17 3,586 2,204 3,308 10,044 5,877 1,981 0 5,734 3,463 0 8,982 0 6,162	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997 0 5,312 3,364 0 8,501 0 5,703	Mar-17 241,289 Fiscal Yd Mar-17 3,576 1,366 3,851 10,553 7,612 2,599 0 5,930 3,935 0 9,570 0 7,823	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097 0 5,577 5,881 0 9,219 0 5,804	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574 1,495 8,272 11,489 1,178 10,385 844 7,394	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504 5,513 9,536 18,996 1,902 11,195 690 7,992	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487 8,347 10,344 22,761 1,467 10,362 697 9,034	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501 8,202 10,646 19,314 1,734 11,782 1,236 9,462	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425 5,520 9,653 12,158 1,816 12,466 1,575 9,787
Alaska Facility Barrow (BRW) Cold Bay (CDB) Dillingham (DLG) Kenai (ENA) Fairbanks (FAI) Homer (HOM) Illiamna (ILI) * Juneau (JNU) Ketchikan (KTN) McGrath (MCG) * Nome (OME) Northway (ORT) * Kotzebue (OTZ) Palmer (PAQ)	277,172 Oct-16 5,051 1,818 5,146 11,602 6,142 2,928 1,455 7,037 4,840 0 9,024 0 6,615 2,798	258,808 Nov-16 4,652 1,514 4,444 11,690 5,857 2,331 0 6,679 3,378 0 8,055 0 7,022 2,036	204,943 Dec-16 4,475 1,387 4,610 11,498 6,196 2,379 0 6,012 3,875 0 6,766 0 6,628 1,735	199,984 Jan-17 3,586 2,204 3,308 10,044 5,877 1,981 0 5,734 3,463 0 8,982 0 6,162 1,976	220,890 Feb-17 3,267 1,167 3,273 9,586 6,289 1,997 0 5,312 3,364 0 8,501 0 5,703 1,647	Mar-17 241,289 Fiscal Ye Mar-17 3,576 1,366 3,851 10,553 7,612 2,599 0 5,930 3,935 0 9,570 0 7,823 2,139	Apr-17 251,199 ear 2017 Apr-17 2,814 2,087 4,157 12,595 6,069 3,097 0 5,577 5,881 0 9,219 0 5,804 3,224	252,913 May-17 2,939 1,937 5,199 16,425 8,135 4,574 1,495 8,272 11,489 1,178 10,385 844 7,394 3,338	267,963 Jun-17 3,227 3,006 7,243 19,542 10,406 6,504 5,513 9,536 18,996 1,902 11,195 690 7,992 3,740	288,485 Jul-17 4,861 2,793 7,524 22,559 11,994 9,487 8,347 10,344 22,761 1,467 10,362 697 9,034 3,569	284,508 Aug-17 4,018 2,963 7,576 19,554 13,861 6,501 8,202 10,646 19,314 1,734 11,782 1,236 9,462 3,570	257,763 Sep-17 2,955 2,301 5,961 17,050 13,214 5,425 5,520 9,653 12,158 1,816 12,466 1,575 9,787 3,342

^{*}Seasonal Facility

Source: Flight Service Stations, AJR-B

^{**}CONUS (Continental United States)

^{***}AFSS (Automated Flight Service Station)

Fiscal Year (FY)/Number of Delayed Flights/Percentage Change

Fiscal Year	Number of Delayed Operations	% Change
2013	333,463	20.3%
2014	319,515	-4.2%
2015	333,818	4.5%
2016	342,294	2.5%
2017	443,095	32.7%
2018	422,126	-4.7%

Source: OPSNET, Office of Performance Analysis (AJR-G)

Percent Share of Delay Causes

Percent Share of Delay Causes

Month	Total Delays	Weather	Volume	Equip- ment	Runway	Other
Oct-12	23,110	61%	20%	1%	9%	9%
Nov-12	13,708	60%	27%	0%	4%	9%
Dec-12	22,467	63%	22%	3%	8%	4%
Jan-13	16,240	72%	17%	0%	5%	5%
Feb-13	17,031	72%	20%	1%	2%	5%
Mar-13	21,697	65%	27%	0%	5%	3%
Apr-13	37,117	55%	16%	0%	8%	21%
May-13	35,740	75%	15%	1%	4%	4%
Jun-13	46,693	84%	10%	0%	4%	2%
Jul-13	46,715	76%	13%	0%	3%	8%
Aug-13	31,101	76%	17%	1%	2%	4%
Sep-13	21,844	64%	22%	0%	9%	5%
Oct-13	21,066	60%	28%	0%	7%	6%
Nov-13	16,316	58%	29%	0%	6%	6%
Dec-13	21,809	58%	31%	0%	7%	4%
Jan-14	15,385	55%	25%	2%	11%	7%
Feb-14	19,755	63%	24%	0%	7%	5%
Mar-14	20,227	52%	31%	0%	11%	6%
Apr-14	25,912	50%	22%	1%	23%	4%
May-14	35,218	66%	15%	2%	13%	4%
Jun-14	43,059	75%	14%	0%	7%	4%
Jul-14	37,967	75%	16%	0%	5%	4%
Aug-14	34,499	73%	17%	0%	4%	6%
Sep-14	28,302	50%	21%	9%	8%	12%
Oct-14	31,940	44%	17%	26%	5%	7%
Nov-14	20,647	63%	27%	0%	5%	5%
Dec-14	28,206	59%	35%	0%	1%	4%
Jan-15	18,571	63%	29%	1%	2%	5%
Feb-15	18,553	59%	33%	0%	1%	6%
Mar-15	22,326	50%	25%	0%	18%	6%
Apr-15	24,416	62%	26%	0%	7%	5%

Percent Share of Delay Causes

Month	Total Delays	Weather	Volume	Equip- ment	Runway	Other
May-15	31,125	70%	20%	1%	4%	6%
Jun-15	41,560	79%	14%	0%	3%	4%
Jul-15	38,308	67%	15%	0%	12%	6%
Aug-15	32,711	58%	23%	1%	13%	5%
Sep-15	25,455	61%	22%	0%	9%	7%
Oct-15	21,893	56%	30%	1%	5%	8%
Nov-15	21,376	59%	30%	1%	3%	7%
Dec-15	29,087	61%	31%	0%	2%	5%
Jan-16	18,035	54%	39%	1%	1%	5%
Feb-16	20,989	66%	26%	0%	3%	5%
Mar-16	28,237	67%	26%	0%	3%	4%
Apr-16	22,683	65%	27%	0%	4%	4%
May-16	28,455	71%	22%	0%	2%	5%
Jun-16	39,238	72%	19%	0%	5%	4%
Jul-16	43,881	78%	15%	0%	3%	4%
Aug-16	41,335	74%	16%	2%	3%	5%
Sep-16	27,085	64%	23%	0%	8%	5%
Oct-16	26,619	48%	25%	0%	20%	6%
Nov-16	23,498	60%	32%	0%	5%	3%
Dec-16	25,411	54%	31%	0%	10%	4%
Jan-17	29,548	68%	21%	0%	7%	4%
Feb-17	25,607	55%	31%	2%	5%	7%
Mar-17	38,291	51%	28%	0%	4%	18%
Apr-17	41,977	54%	21%	0%	18%	7%
May-17	49,208	50%	17%	0%	27%	5%
Jun-17	52,981	69%	16%	0%	10%	4%
Jul-17	49,913	74%	16%	1%	5%	5%
Aug-17	47,951	72%	20%	0%	3%	4%
Sep-17	32,091	51%	33%	0%	8%	7%
Oct-17	31,248	51%	26%	0%	15%	8%
Nov-17	20,732	49%	39%	0%	5%	6%
Dec-17	25,381	54%	38%	0%	2%	6%
Jan-18	26,125	55%	23%	0%	18%	4%
Feb-18	27,203	54%	25%	0%	17%	4%
Mar-18	25,416	53%	35%	0%	7%	6%
Apr-18	32,849	60%	26%	0%	7%	6%
May-18	45,132	72%	18%	0%	6%	4%
Jun-18	45,208	71%	19%	1%	3%	6%
Jul-18	50,700	80%	14%	0%	3%	3%
Aug-18	57,162	83%	12%	0%	2%	3%
	34,970	69%	19%	0%	8%	3%

Airspace Modernization

The FAA is modernizing the nation's airspace from one centered largely on analog, ground-based technology to one that takes advantage of state-of-the-art, satellite-based and digital systems. This transformation from ground-based to satellite-enabled navigation and aircraft tracking, from voice to digital communication, and from limited data exchange to fully integrated information management (among many other improvements) is changing how we see, navigate and communicate in our nation's skies.

Many of these technologies and procedures are significantly improving safety, capacity and efficiency on runways and in our skies while reducing fuel burn, carbon emissions and noise:

Data Communications (Data Comm)

Data Comm revolutionizes communication between air traffic controllers and pilots. The new technology supplements radio voice messages, enabling controllers to transmit typed departure clearances that pilots can read and accept with the touch of a button. This translates directly into safer, more efficient operations, helping aircraft take off sooner and reach their destinations on time.

Data Comm tower service was successfully deployed, under budget and almost two-and-a-half years ahead of schedule, at 55 airports. Due to its success, air carriers requested and the FAA approved the deployment of Data Comm at seven more airports. When en route services are deployed, the system will be used for traffic at cruising altitude, and more kinds of messages can be exchanged.

Click on the following link for more information about Data Comm:

https://www.faa.gov/nextgen/how_nextgen_works/new_technology/data_comm/

Performance Based Navigation (PBN)

PBN routes and procedures are primarily satellite-based and not bound to traditional ground-based navigation aids. Aircraft are thus able to fly more directly from Point A to Point B. PBN procedures use satellite-based navigation and on-board aircraft equipment to navigate with greater precision through all phases of flight. They enhance safety through repeatable, predictable flight paths, improve airport arrival rates and reduce fuel burn. The FAA has published more than 9,000 PBN procedures and routes.

Click on the following link for more information about PBN:

https://www.faa.gov/nextgen/how_nextgen_works/ new_technology/pbn/

Automatic Dependent Surveillance-Broadcast (ADS-B)

ADS-B, the satellite-enabled successor to radar, relies on GPS signals to determine and report aircraft position. It is replacing ground-based radars as the primary means of aircraft surveillance. ADS-B is one of the most important underlying technologies in the modernization effort.

The nationwide infrastructure for ADS-B was completed in April 2014. This means that the nation's airspace system now has satellite-based coverage wherever radar coverage exists — as well as in some areas that lack radar coverage, such as certain low-altitude airspace, the Gulf of Mexico and Alaska. By Jan. 1, 2020, aircraft operating in most controlled airspace (airspace in which transponders are required today) will be required to have ADS-B Out, which broadcasts aircraft position. Aircraft that fly only in uncontrolled airspace where no transponders are required are exempt from the mandate, as are aircraft without electrical systems, such as balloons and gliders. ADS-B In, which is not mandatory, gives pilots cockpit displays that show the position of nearby aircraft, weather conditions and other flight information. ADS-B In improves pilot situational awareness and greatly enhances safety, particularly for general aviation aircraft, which usually have no other system aboard for spotting nearby air traffic.

Click on the following link for more information about ADS-B:

https://www.faa.gov/nextgen/how_nextgen_works/ new_technology/adsb/

Click on the following link for the latest ADS-B equipage numbers.

https://www.faa.gov/nextgen/equipadsb/levels/

En Route Automation Modernization (ERAM)

ERAM, which is fully deployed at the 20 en route centers across the country where controllers handle high-altitude traffic, processes flight and radar data, serves as a platform for communications, and generates data for controllers' screens. The technology enables controllers to track up to 1,900 aircraft at a time – an increase from 1,100 under the previous system. ERAM can also track aircraft using ADS-B.

Terminal Automation Modernization Replacement (TAMR)

TAMR is an FAA program that is fielding a technology advancement akin to ERAM, only for terminal, not en route, airspace, which is the airspace around major airports. The Standard Terminal Automation Replacement System (STARS) combines multiple air traffic control technologies into a single, state-of-the-art platform. STARS is now in use at 70 terminal radar approach control (TRACON) facilities, including the "Big 11" TRACONs that control 80 percent of all traffic arriving and departing from U.S. airports.

Click on the following link for more information about ERAM and TAMR:

https://www.faa.gov/nextgen/how_nextgen_works/ new_technology/automation/

System Wide Information Management (SWIM)

SWIM is one of the most important programs in the FAA's modernization effort. One of the keys to a safe and efficient flight is to give the people responsible for that flight the right information at the right time. As such, SWIM provides near real-time, accurate flight, surveillance, weather and aeronautical information in a flexible, secure digital architecture. It is the data-sharing backbone of modernization: it receives information collected independently, combines it and distributes it as data to authorized users in the aviation community. This provides common situational awareness and facilitates collaborative decision making – an integral part of delivering aircraft safely to their destinations on time.

Click on the following link for more information about SWIM:

https://www.faa.gov/nextgen/how_nextgen_works/ new_technology/swim/

Unmanned Aircraft Systems (UAS)

UAS Metrics

Total Registrations	1,314,768
Hobbyists	992,392
Non-Hobbyists	322,376
Bounds Billst Cartificates Israed	131.137
Remote Pilot Certificates Issued	121,126
Part 107 Waivers Issued	2,362
Top Five Waiver Requests Approved	
Night Operations	2,223
Operations Over People	28
Beyond Visual Line of Sight (BVLOS)	32
Altitude	28
Ops from Moving Vehicle	6
Airspace Authorizations Issued	32,619

Source: UAS Integration Office

As of: January, 31 2019

Airports

Definitions of Landing Facilities

Airport:

An area of land or water which is used, or intended to be used, for the aircraft takeoff and landing.

https://www.faa.gov/airports/resources/publications/orders/compliance_5190_6/

Heliport:

The area of land, water, or a structure used or intended to be used for the landing and takeoff of helicopters, together with appurtenant buildings and facilities.

https://www.faa.gov/documentLibrary/media/Advisory_Circular/150 5390 2c.pdf

Seaplane Base:

A designated area of water used or intended to be used for the landing and takeoff of seaplanes and shoreside access.

https://www.faa.gov/documentLibrary/media/Advisory_Circular/draft-150-5395-1B-Seaplane-Bases.pdf

Civil Public Use Part 139:

14 CFR Part 139 requires the FAA to issue airport operating certificates to airports that---

- Serve scheduled and unscheduled air carrier aircraft with more than 30 seats;
- Serve scheduled air carrier operations in aircraft with more than 9 seats but less than 31 seats; and
- The FAA Administrator requires to have a certificate.

https://www.faa.gov/airports/airport_safety/part139_cert/whatis-part-139/

Public Use Airports:

A public airport or a privately owned airport used or intended to be used for public purposes.

https://www.faa.gov/airports/resources/publications/orders/compliance 5190 6/

Private Use Airports:

A publicly owned or privately owned airport not open to the public.

https://www.faa.gov/airports/resources/publications/orders/compliance 5190 6/

Number of U.S. Airports

	2018	2017	2016	2015	2014
Total Airports	19,624	19,639	19,576	19,524	19,299
Airports	13,093_	13,154	13,154	13,156	13,089
Heliports	5,868_	5,820	5,763	5,709	5,553
Seaplane Bases	502	503_	497	493	488
Gliderports	35	35	35	35	36
Balloonports	14	13	13	13	13
Ultralight Flightparks	112	114_	114	118	120
Total Civil Public Use Airports	5,090	5,109	5,119	5,136	5,145
Civil Public Use Part 139	523_	527	529	531	537
Civil Public Uses Non-Part 139	4,567	4,582	4,590	4,605	4,608
Civil Public Use Airports Abandoned	23	11	20	14	15
Newly Established Public Use	7_	4	4	8	10
Total Civil Private Use Airports	14,249_	14,242_	14,168	14,096	13,863
Civil Private Use Airports Abandoned	252	158	222	112	307
Newly Established Private Use	214	234	305	352	171
Military Airports	278	282	283	287	286

Source: Office of Airports, 202-267-9590

Aircraft

U.S. Mainline¹ Air Carriers, Passenger Jet Aircraft

	Large Narrowbody					Large W	/idebody			Regional	
Calendar Year	2 Engine	3 Engine	4 Engine	Total	2 Engine	3 Engine	4 Engine	Total	Large Jets	Regional Jets	Total Jets
2010	3,120	8	1	3,129	470	9	43	522	3,651	71	3,722
2011	3,127	7	1	3,135	471	7	41	519	3,654	76	3,730
2012	3,123	7	0	3,130	480	3	40	523	3,653	82	3,735
2013	3,159	5	0	3,164	482	0	40	522	3,686	93	3,779
2014	3,224	2	0	3,226	475	0	37	512	3,738	98	3,836
2015	3,319	2	0	3,321	492	0	31	523	3,844	99	3,943
2016	3,457	2	0	3,459	490	0	27	517	3,976	97	4,073
2017E	3,539	1	0	3,540	517	0	0	517	4,057	98	4,155
2018	3,616	1	0	3,617	526	0	0	526	4,143	98	4,241
2019	3,652	1	0	3,653	539	0	0	539	4,192	90	4,282

¹ Mainline carriers are defined as those providing service primarily via aircraft with 90 or more seats. Regionals are defined as those providing service primarily via aircraft with 89 or less seats and whose routes serve mainly as feeders to the mainline carriers.

U.S. General Aviation and Part 135 Activity (Calendar Years)

	Estimated Active Aircraft (Thousands)			ed Hours Millions)
	2016	2015	2016	2015
TOTAL	211.8	210.0	24.8	24.1
By Type Aircraft				
Piston	142.6	141.1	13.5	12.8
Turboprop	9.8	9.7	2.7	2.5
Jet	13.8	13.4	3.8	3.8
Rotary Wing	10.6	10.5	3.1	3.3
Experimental	27.6	27.9	1.2	1.3
Special Light Sport	2.5	2.4	0.2	0.2
Other	5.0	4.9	0.2	0.2
By Type Flying				
Corporate	9.8	11.3	2.6	2.4
Business	16.2	15.9	1.8	1.8
Personal	142.1	139.7	7.9	7.4
Instructional	15.8	15.7	4.9	4.6
Aerial Application	3.2	3.3	0.9	0.9
Aerial Observation	6.1	5.5	1.4	1.4
Aerial Other	0.8	0.9	0.2	0.2
External Load	0.3	0.3	0.2	0.2
Other Work	1.3	1.3	0.4	0.2
Sightseeing	1.1	1.2	0.2	0.2
Air Tours	0.6	0.5	0.4	0.3
Air Taxi	5.8	6.5	2.4	2.5
Air Medical Services	2.5	2.4	0.9	0.8

Source: Office of Aviation Safety, (202) 267-3131

Aircraft Certification Service, Aircraft Certification Mission and Program Files

	FY15	FY16	*FY17
Type Certificates/Supplemental Type Certificates Issued	1,638	2,054	1,533
Other Design Approvals Issued	3,249	3,290	1,519
Production Approvals (Including Amendments) Issued	36	39	29
Airworthiness Certificates Issued	889	735	311
New Airworthiness Directives (AD) Issued	124	150	106
*New Designees (Representative of the Administrator) Appointed	-	-	-
Total Active Designees	1,556	1,571	1,491

^{*}FY2017 thru April Only. Counted twice a year.

As of: 09/06/2017

Source: AIR-9E0, (202) 267-3948

^{*}New Designees are no longer tracked.

Industry Trends

FAA Aerospace Forecast¹

										FORECAST				
Fiscal Year		2010	2011	2012	2013	2014	2015	2016	2017	2018	2023	2028	2033	2038
Domestic	Available Seat Miles (mil.)	679,479	693,479	694,413	699,837	711,048	743,569	783,072	809,013	848,648	924,213	1,002,827	1,108,102	1,228,116
	Revenue Passenger Miles (mil.)	555,339	572,165	577,677	583,982	600,039	628,545	663,176	683,344	719,197	791,682	863,948	957,784	1,063,690
	Enplanements (thou.)	634,811	650,094	653,787	654,399	668,953	696,284	726,194	743,473	778,127	844,316	909,105	994,587	1,089,931
International	Available Seat Miles (mil.)	281,310	300,410	300,523	303,706	315,451	323,329	328,600	334,713	347,995	415,394	486,172	565,769	655,743
	Revenue Passenger Miles (mil.)	230,961	242,476	244,565	250,264	256,693	260,968	264,782	271,268	282,082	336,724	394,304	459,062	532,297

87,999

93,439

96,929

90,219

101,796

119,221

140,458

164,904

193,791

Enplanements (thou.)

Terminal Area Forecast (TAF)²

										FORECAST				
Fiscal Year		2010	2011	2012	2013	2014	2015	2016	2017	2018	2023	2028	2033	2038
Operations, Itinerant (thou.)	Air Carrier	12,972	13,187	13,208	13,110	13,370	14,069	14,720	15,358	15,993	18,953	20,762	22,689	24,723
	Air Taxi & Commuter	12,133	11,925	11,679	11,482	11,046	10,505	10,108	9,704	9,566	7,983	8,239	8,567	8,915
	GA	34,402	33,767	33,641	33,102	32,572	32,402	32,136	32,141	32,240	32,774	33,346	33,962	34,629
	Military	3,583	3,671	3,459	3,393	3,417	3,495	3,498	3,508	3,508	3,508	3,508	3,509	3,509
	Total	63,090	62,550	61,987	61,088	60,405	60,471	60,463	60,710	61,307	63,218	65,855	68,726	71,777
Operations, Local (thou.)	Civilian	36,768	36,079	35,882	35,668	35,574	35,881	35,731	35,925	36,218	36,862	37,549	38,288	39,090
	Military	1,377	1,387	1,346	1,339	1,297	1,261	1,189	1,244	1,244	1,244	1,244	1,244	1,244
	Total	38,145	37,467	37,229	37,007	36,872	37,142	36,920	37,169	37,463	38,106	38,793	39,533	40,334

² Terminal Area Forecast, February 2018; includes active airports in the National Plan of Integrated Airport Systems (NPIAS)

77,296

81,022

82,915

85,063

¹ FAA Aerospace Forecast, March 2018

Commercial Space Transportation

Licensed Commercial Launches

	FY2019	FY2018	FY2017	FY2016	FY2015
Licensed Commercial Launches					
TOTAL	14	32	18	11	8
Number of Orbital Launches	9	24	18	11	7
Number of Suborbital Launches	5	8	0	0	1
By Launch Vehicle Type					
Antares Configuration 120	0	0	0	0	0
Antares Configuration 130	0	0	0	0	1
Antares Configuration 230	1	2	1	0	0
Atlas V-401	0	0	2	2	0
Atlas V-421	0	0	0	1	0
Atlas V-431	0	0	1	0	0
Delta IV Heavy	0	0	0	0	1
Dragon Pad Abort Test Vehicle	0	0	0	0	1
Electron	2	1	1	0	0
Falcon 9	6	19	0	0	1
Falcon 9 Version 1.1	0	0	0	0	4
Falcon 9 Version 1.2	0	0	12	8	0
Falcon Heavy	0	1	0	0	0
Minotaur C	0	1	0	0	0
Minotaur IV	0	0	1	0	0
Rocket 1	1	1	0	0	0
SARGE	1	1	0	0	0
SpaceShip Two	2	3	0	0	0
New Shepard System	1	3	0	0	0
By Launch Site					
Cape Canaveral Air Force Station	2	10	5	11	7
Kennedy Space Center	1	4	7	0	0
Mahia Peninsula, New Zealand	2	1	1	0	0
Mid-Atlantic Regional	1	2	1	0	1
Mojave Air and Space Port	2	3	0	0	0
Pacific Spaceport Complex Alaska	1	1	0	0	0
Spaceport America	1	1	0	0	0
Vandenberg Air Force Base	3	7	4	0	0
West Texas Launch Site	1	3	0	0	0

Experimental Permit Launches

	FY2019	FY2018	FY2017	FY2016	FY2015
Experimental Permit Launches					
TOTAL	0	0	1	4	2

Re-Entries

	FY2019	FY2018	FY2017	FY2016	FY2015
Re-entries					
TOTAL	1	3	3	2	4
By Vehicle					
Dragon	1	3	3	2	3
Orion spacecraft	0	0	0	0	1

Active Launch Site Operator Licenses

Operator	Site	Location
Harris Corporation	California Spaceport	California
Oklahoma Space Industry Development Authority	Burns Flat, Oklahoma	Oklahoma
Space Florida	Cape Canaveral Air Force Station	Florida
Houston Airport System	Ellington Airport	Texas
Jacksonville Aviation Authority	Cecil Field	Florida
Midland International Airport	Midland International Airport	Texas
Mojave Air & Space Port	Mojave Air & Space Port	California
New Mexico Spaceflight Authority	Spaceport America	New Mexico
Alaska Aerospace Development Corporation	Pacific Spaceport Complex Alaska	Alaska
Virginia Commercial Space Flight Authority	Wallops Flight Facility	Virginia
Adams County Colorado	Spaceport Colorado	Colorado

Source: provided on 11-30-2018;

by FAA Office of Commercial Space Transportation, 202-267-7793

Airmen

Airmen Certification System – Active Pilots Summary (February 1, 2019)

Note: These totals are based on airmen addresses.

	Student Pilot	Sport Pilot	Recreational Pilot	Private Pilot	Commercial Pilot	Airline Transport Pilot	TOTAL US PILOTS
AA-Americas*	2	0	0	8	2	8	20
AE-Europe And Canada*	86	2	0	58	50	81	277
Alabama	2,069	81	3	2,064	1,979	1,526	7,722
Alaska	1,783	57	1	2,567	1,632	2,237	8,277
American Samoa	0	0	0	0	0	2	2
AP-Pacific*	245	1	0	51	79	45	421
Arkansas	1,679	88	1	1,610	1,075	980	5,433
Arizona	5,288	179	0	5,019	4,509	5,841	20,836
California	18,051	525	7	20,207	10,613	12,585	61,988
Colorado	4,513	148	1	4,622	3,096	6,621	19,001
Connecticut	1,141	29	0	1,521	734	1,378	4,803
Delaware	380	13	0	358	218	433	1,402
Dist of Columbia	219	5	1	199	78	139	641
Fed St Micronesia*	0	0	0	0	2	0	2
Florida	19,387	575	2	13,819	11,043	19,576	64,402
Georgia	4,625	161	6	4,523	2,614	7,550	19,479
Guam	33	0	0	21	20	99	173
Hawaii	903	16	0	556	704	1,295	3,474
Idaho	1,363	91	1	1,745	1,101	1,207	5,508
Illinois	4,320	306	6	4,972	2,551	4,918	17,073
Indiana	2,946	206	3	3,277	1,619	2,426	10,477
lowa	1,423	102	6	2,001	912	766	5,210
Kansas	1,835	87	3	2,573	1,263	1,361	7,122
Kentucky	1,600	59	5	1,608	849	2,142	6,263
Louisiana	1,590	66	0	1,631	1,118	1,190	5,595
Maine	615	53	1	820	455	534	2,478

	Student Pilot	Sport Pilot	Recreational Pilot	Private Pilot	Commercial Pilot	Airline Transport Pilot	TOTAL US PILOTS
Marshall Islands*	0	0	0	0	0	1	1
Maryland	2,972	91	2	2,175	1,267	1,842	8,349
Massachusetts	2,440	66	0	2,657	1,198	1,645	8,006
Michigan	3,650	224	8	4,657	2,273	3,477	14,289
Minnesota	2,886	109	1	3,883	2,045	3,955	12,879
Mississippi	1,509	31	1	1,145	862	972	4,520
Missouri	2,675	165	5	3,072	1,630	2,198	9,745
Montana	1,028	36	1	1,348	892	685	3,990
Nebraska	1,073	36	0	1,261	638	666	3,674
New Hampshire	767	48	2	966	579	1,449	3,811
New Jersey	2,588	42	2	2,528	1,352	2,394	8,906
New Mexico	1,225	78	2	1,454	1,001	648	4,408
New York	5,526	137	13	4,990	2,661	3,178	16,505
Nevada	1,634	62	1	1,730	1,442	2,969	7,838
North Carolina	3,824	170	4	4,389	2,446	4,716	15,549
North Dakota	1,156	26	0	1,048	1,081	295	3,606
North Mariana ISL	5	0	0	1	3	5	14
Ohio	4,063	251	20	5,031	2,338	4,026	15,729
Oklahoma	2,835	55	1	2,557	1,600	1,604	8,652
Oregon	2,604	105	2	3,230	2,091	1,660	9,692
Palau*	0	0	0	1	0	0	1
Pennsylvania	4,214	197	9	4,579	2,405	4,372	15,776
Puerto Rico	713	48	0	316	228	361	1,666
Rhode Island	289	9	0	290	150	237	975
South Carolina	1,766	78	0	2,039	1,160	2,272	7,315
South Dakota	573	56	0	786	512	459	2,386
Tennessee	3,239	114	3	3,215	1,948	4,542	13,061
Texas	14,818	407	3	13,475	8,674	17,562	54,939
Utah	2,600	75	0	2,301	1,563	2,707	9,246
Vermont	325	10	1	437	250	239	1,262

	Student Pilot	Sport Pilot	Recreational Pilot	Private Pilot	Commercial Pilot	Airline Transport Pilot	TOTAL US PILOTS
Virginia	3,878	153	3	3,763	2,545	4,448	14,790
Virgin Islands	64	1	0	45	26	41	177
Washington	5,329	218	2	5,839	3,283	6,564	21,235
West Virginia	576	41	1	561	310	321	1,810
Wisconsin	2,446	262	3	3,312	1,345	2,201	9,569
Wyoming	531	22	1	698	325	339	1,916

^{*}Note: The Flight Standards Region includes Armed Forces (military personnel holding civilian certificate and stationed in a foreign country), and Federated States of Micronesia, Marshall Islands, and Palau.

Airmen Certification System – Active Pilots Summary (Grand Totals, February 1, 2019)

	Student Pilot	Sport Pilot	Recreational Pilot	Private Pilot	Commercial Pilot	Airline Transport Pilot	TOTAL US PILOTS
State/US Territory Totals:	161,917	6,273	138	165,609	100,439	159,990	594,366
Foreign Address Totals:	11,620	26	0	7,624	14,428	7,701	41,399

FAA Resources

Washington Headquarters, Routing Symbols, Officials

Musillige	on ricadquarters, Routing Symbols, Officials
Routing Symbol	Officials
AOA	Administrator
	Daniel K. Elwell, Acting, 202–267–3111, Daniel.Elwell@faa.gov
	Tina Amereihn, Chief of Staff, 202-267-3180, Tina.Amereihn@faa.gov
ADA	Deputy Administrator
	Carl Burleson, 202-267-8111, Carl.Burleson@faa.gov
	Elisabeth Smeda, Senior Advisor, 202-267-6541, Elisabeth.Smeda@faa.gov
	Senior Advisor, Unmanned Aircraft Systems Integration
	Vacant
AAE	Office of Audit and Evaluation
	Director, H. Clayton Foushee, 202-267-9000, Clay.Foushee@faa.gov
AJ0	Chief Operating Officer, Air Traffic Organization
	Teri L. Bristol, 202-267-1240, Teri.Bristol@faa.gov
	Timothy Arel, Deputy Chief Operating Officer, 202-267-1240, Timothy.Arel@faa.gov
AJG	Management Services
	Vice President, Lisbeth L. Mack, 202-267-9341, Lisbeth.Mack@faa.gov
AJI	Safety and Technical Training
	Vice President, Jeffrey Vincent, 404-305-6212, Jeffrey.Vincent@faa.gov
AJM	Program Management Organization
	Vice President, Kristen G. Burnham, 202-267-3280, Kristen.Burnham@faa.gov
AJR	Systems Operations
	Vice President, Michael C. Artist, 202-267-0753, Mike.C.Artist@faa.gov
AJT	Air Traffic Services
	Vice President, Glen Martin, 202-267-0896, Glen.Martin@faa.gov
AJV	Mission Support Services
	Jodi McCarthy,202-267-8261, Jodi.McCarthy@faa.gov
AJW	Technical Operations Services
	Vice President, Jeffery S. Planty, 202-267-3366, Jeffrey.Planty@faa.gov
ACR	Assistant Administrator for Civil Rights
	Courtney L. Wilkerson, Acting, 202-267-3264, Courtney.Wilkerson@faa.gov
	Deputy Assistant Administrator, Courtney L. Wilkerson, 202-267-3264 Courtney.Wilkerson@faa.gov
AFN	Assistant Administrator for Finance and Management
	Mark House, Acting, 202–267–8627, Mark.House@faa.gov
ABA	Deputy Assistant Administrator for Financial Services/CFO
	Carl Burrus, Acting, 202-267-9105, Carl.Burrus@faa.gov
ACQ	Deputy Assistant Administrator for Acquisition and Business
	Nathan S. Tash, 202-267-7222, Nathan.Tash@faa.gov
AIT	Deputy Assistant Administrator for Information and Technology
	Sean Torpey, Acting, 202-267-8627, Sean.Torpey@faa.gov
ARC	Deputy Assistant Administrator for Regions and Center Operations
	Joseph N. Miniace, Acting, 816-329-3050 Joseph.N.Miniace@faa.gov

Routing Symbol	Officials
AGC	Chief Counsel
	Charles Trippe, 202-267-3222, Charles.Trippe@faa.gov
	Principal Deputy Chief Counsel
	Patricia McNall, 202-267-3773, Pat.McNall@faa.gov
AGI	Assistant Administrator for Government and Industry Affairs
	Christopher Brown, 202-267-3277, Chris.C.Brown@faa.gov
AHR	Assistant Administrator for Human Resource Management
	Annie B. Andrews, 202–267–3456, Annie.B.Andrews@faa.gov
	Acting Deputy Assistant Administrator, Lisbeth Mack, 202-267-9341, Lisbeth.Mack@faa.gov
AHA	Office of the Accountability Board
	Executive Director, Tammy Van Keuren, 202-267-3817, Tammy.Van.Keuren@faa.gov
AHB	Director, Compensation, Benefits and Worklife, Elizabeth A. Dayan, 202-267-4028, Elizabeth.Dayan@faa.gov
AHD	Director, Talent Development (Chief Learning Officer), Melissa King, 202-267-9041, Melissa.King@faa.gov
AHF	Director, Human Resource Services, M. Renee Coates, 202-267-3850, Renee.Coates@faa.gov
AHL	Director, Labor and Employee Relations, Laura R. Glading, 202-267-6268. Laura.Glading@faa.gov
ANG	Assistant Administrator for NextGen
	Pamela D. Whitley, Acting, 202-267-7111, Pamela.Whitley@faa.gov
	Deputy Assistant Administrator, Pamela D. Whitley, 202-267-7111, Pamela.Whitley@faa.gov
	Director, Joint Program Development Office, Karlin R. Toner, 202-267-0104, Karlin.Toner@faa.gov
	Chief Scientific and Technical Advisor for Architecture and Systems Development, Steven W. Bradford, 202-267-1218, Steve.Bradford@faa.gov
	Director, NAS Systems Engineering Service Office, Michele M. Merkle, 202-267-2708, Michele.Merkle@faa.gov
	Director, Portfolio Management and Technology Development, Paul V. Fontaine, 202-267-9251, Paul.Fontaine@faa.gov
	Director, Interagency Planning Office, Roosevelt Mercer, Jr., 202-267-4963, Roosevelt.Mercer@faa.gov
AOC	Assistant Administrator for Communications
	Gregory Martin, 202-267-3454, Gregory.Martin@faa.gov
	Deputy, Public Affairs, Laura J. Brown, 202-267-3455, Laura.J.Brown@faa.gov
	Deputy, Corporate Communications, Jeannie Shiffer, 202-267-8859, Jeannie.Shiffer@faa.gov
APL	Assistant Administrator for Policy, International Affairs and Environment
	Benjamin Bailey Edwards,202-267-7654. Bailey.Edwards@faa.gov
	Deputy, Assistant Administrator, Nancy E. Shellabarger, Acting, 202-267-7954, Nan.Shellabarger@faa.gov
AEE	Office of Environment and Energy
	Executive Director, Kevin W. Welsh, 202-267-1451, Kevin.Welsh@faa.gov
API	Office of International Affairs
	Executive Director, Christopher Rocheleau, Chris.Rocheleau@faa.gov
AP0	Office of Aviation Policy and Plans
	David Chien, Acting, 202-267-3274, David.Chien@faa.gov

Routing Symbol	Officials
ASH	Associate Administrator for Security and Hazardous Materials
	Claudio Manno, 202-267-7211, Claudio.Manno@faa.gov
	Deputy, Angela H. Stubblefield, 202-267-7211, Angela.H.Stubblefield
AXF	Office of Joint Security and Hazardous Materials Office, West
	Director, Office of Infrastructure Protection, Patricia A. Pausch, 847-294-74115, Patricia.Pausch@faa.gov
AXH	Office of Hazardous Materials
	Director, Janet McLaughlin, 202-267-9419, Janet.McLaughlin@faa.gov
AXI	Director, Office of Investigations
	Michelle Root, 202-267-1456, Michelle.Root@faa.gov
AXM	Director, Office of Business and Mission Services
	Donald Faulkner, 202-267-8005, Don.Faulkner@faa.gov
AX0	Office of National Security Programs and Incident Response
	Director, Joshua P. Holtzman, 202-267-7980, Joshua.Holtzman@faa.gov
AXP	Director, Office of Personnel Security
	Gerald K. Moore, 424-405-7100, Gerald.Moore@faa.gov
ARP	Associate Administrator for Airports
	Kirk Shaffer, 202-267–9471, Kirk.Shaffer@faa.gov
	Deputy, Winsome Lenfert, 202-267-9590, Winsome.A.Lenfert@faa.gov
AAS	Office of Airport Safety and Programming
	Director, John R. Dermody, 202-267-3053, John.Dermody@faa.gov
ACO	Office of Airport Compliance and Management Analysis
	Director, Kevin Willis, 202-267-8741, Kevin.Willis@faa.gov
APP	Office of Airport Planning and Programming
	Director, Brian E. Black, 202-267-8775, Elliott.Black@faa.gov
AST	Associate Administrator for Commercial Space Transportation
	Wayne R. Monteith, 202-267-7793, Wayne.R.Monteith@faa.gov
	Deputy, Kelvin B. Coleman, 202-267-7793, Kelvin.Coleman@faa.gov
	Strategic Operations for Commercial Space Transportation
	Director, Dorothy Reimold, 202-267-7635, Dorothy.Reimold@faa.gov
AVS	Associate Administrator for Aviation Safety
	Ali Bahrami, 202-267-3131, Ali.Bahrami@faa.gov
	Deputy Associate Administrator
	Vacant
AAM	Office of Aerospace Medicine
	Michael A. Berry, MD, 202-267-3535, Michael.Berry-MD@faa.gov
AFX	Flight Standards Service
	Executive Director, John S. Duncan, 202-267-8237, John.S.Duncan@faa.gov
AIR	Aircraft Certification Service
	Executive Director, Dorenda D. Baker, 2022677270, Dorenda.Baker@faa.gov
AOV	Office of Air Traffic Safety Oversight Service
	Vacant
AQS	Office of Quality, Integration and Executive Services
	Director, Sunny Lee-Fanning, 202-267-9664. Sunny Lee-Fanning@faa.gov

Routing Symbol	Officials			
ARM	Office of Rulemaking			
	Director, Lirio L. Liu, 202-267-9677, Lirio.Liu@faa.gov			
AUS	Office of Unmanned Aircraft Systems			
	Director, Jay Merkle, 202-267-1549, Jay.Merkle@faa.gov			
AVP	Office of Accident Investigation and Prevention			
	Director, Michael J. O'Donnell, 202-267-8776, Michael J. Odonnell@faa.gov			

Major Field Organizations, Routing Symbols, Officials

Routing Symbol	Officials			
AAL	Alaskan Region, Regional Administrator			
	Kerry Long, 907-271-5645, Kerry.Long@faa.gov			
	222 West 7th Avenue, Box 14			
	Anchorage, AL 99513-7587			
	Regional Operations Center, 206-231-2000			
ACE	Central Region, Regional Administrator			
	Joseph Miniace, 816-329-3050, Joseph.N.Niniace@faa.gov			
	901 Locust Street, Suite 501			
	Kansas City, Missouri 64106-2641			
	Regional Operations Center, 817-222-5006			
AEA	Eastern Region, Regional Administrator			
	Jennifer Solomon, 718-553-3000, Jennifer.Solomon@faa.gov			
	1 Aviation Plaza			
	Jamaica, New York 11434-4809			
	Regional Operations Center, 404-305-5150			
AGL	Great Lakes Region, Regional Administrator			
	Rebecca MacPherson, 847-294-7294, Rebecca.MacPherson@faa.gov			
	O'Hare Lake Office Center			
	2300 East Devon Avenue, Room 401			
	Des Plaines, Illinois 60018			
	Regional Operations Center, 817-222-5006			
AMC	Mike Munroney Aeronautical Center, Director			
	Michelle Coppedge, 405-954-4521, Michelle.Coppedge@faa.gov			
	6500 South MacArthur			
	Oklahoma City, Oklahoma 73125			
	Duty Officer, 202-267-8627			
ANE	New England Region, Regional Administrator			
	David Spencer, Acting, 781-238-7020, David.Spencer@faa.gov			
	1200 District Avenue			
	Burlington, Massachusetts 01803			
	Regional Operations Center, 404-305-5150			

Routing Symbol	Officials
ANG	William J. Hughes Technical Center, Director
	Shelly J. Yak
	Atlantic City International Airport
	New Jersey 08405
	Duty Officer, 609-485-6482
AMA	FAA Academy, Director
	Keith Deberry, 405-954-8700, Keith.Deberry@faa.gov
	Building 12, Room 129
	P.O. Box 25082
	Oklahoma City, Oklahoma 73125
	Duty Office, 202-267-8627
AMK	Enterprise Services Center, Director
	Robyn M. Burk
	6500 South MacArthur Boulevard
	Oklahoma City, Oklahoma 73125
	Duty Officer, 202-267-8627
AML	FAA Logistics Center, Program Director
	Randall Burke
	6500 South MacArthur Boulevard
	Oklahoma City, Oklahoma 73125
	Duty Officer, 202-267-8627
ANM	Northwest Mountain Region, Regional Administrator
	David Suomi, 206-231-2001, David.Suomi@faa.gov
	2200 South 216th Street
	Des Moines, Washington 98198
	Regional Operations Center, 206-231-2000
AS0	Southern Region, Regional Administrator
	Michael C. O'Harra, 404-305-5000, Michael.O'Harra@faa.gov
	1701 Columbia Avenue
	College Park, GA 30337
	Regional Operations Center, 404-305-5150
ASW	Southwest Region, Regional Administrator
	Terry L. Biggio, 817-222-5001, Terry.Biggio@faa.gov
	10101 Hillwood Parkway
	Fort Worth, TX 76177
	Regional Operations Center, 817-222-500
AWP	Western-Pacific Region, Regional Administrator
	Tamara Swann, Acting, 424-405-7000, Tamara.Swann@faa.gov
	777 S. Aviation Blvd., Suite 150
	El Segundo, CA 90245
	Regional Operations Center, 206-231-2000

International Area Offices, Routing Symbols, Officials

Officials		
Africa, Europe and Middle East Office		
Director, Catherine M. Lang, 228-11-5159, Katherine.M.Lang@faa.gov		
Asia, Pacific Office		
Director, Carey Fagan, +65 6476-9475, Carey.Fagan@faa.gov		
Western Hemisphere		
Director, Christopher Barks, 507-317-5370, Christopher.Barks@faa.gov		

 $\textbf{Source:} \ \ \textbf{Office of Human Resource Management (AHR) - AHF-300}$

As of August 15, 2018

FAA Regions



Source: Office of FAA Regions and Center Operations, 202-267-9011

FAA Budget Summary

	FY 2016 Enacted	FY 2017 Enacted
Operations	9,909,724	10,025,852
Air Traffic (ATO)	7,506,934	7,559,785
Aviation Safety (AVS)	1,258,411	1,298,482
Commercial Space (AST)	17,800	19,826
Finance & Management (AFN)	760,500	771,342
NextGen (ANG)	60,089	60,155
Security & Hazmat Safety (ASH)	99,239	107,161
Staff Offices	206,751	209,101
Facilities & Equipment	2,855,000	2,855,000
Activity 1 Engineering & Testing	156,050	156,960
Activity 2 ATC Facilities & Equip.	1,832,201	1,791,710
Activity 3 Non-ATC Fac. & Equip.	171,000	182,930
Activity 4 Mission Support	225,700	237,400
Activity 5 Personnel & Expenses	470,049	486,000
Research, Engineering & Dev.	166,000	176,500
Safety	95,969	105,370
Economic Competitiveness	22,589	22,243
Environmental Sustainability	41,897	43,187
Mission Support	5,545	5,700
Grants-in-aid for Airports	3,350,000	3,350,000
Personnel & Related Expenses	107,100	107,691
Airport Cooperative Research	15,000	15,000
Grants-in-aid for Airports	3,191,900	3,185,934
Airport Technology Research	31,000	31,375
Small Community Air Service	5,000	10,000
TOTAL	16,280,724	16,407,352

Source: FAA Office of Financial Services

FAA Workforce Data: Line of Business and Location

	Yea	r
Line of Business	2016	2017
Air Traffic Organization (ATO)	31,248	31,174
Airports (ARP)	551	554
Aviation Safety (AVS)	7,424	7,404
Commercial Space Transportation (AST)	95	98
Security & Hazardous Materials Safety (ASH)	491	492
Staff Offices	5,416	5,420
Grand Total	45,225	45,142
Location (Region/Center)	2016	2017
Aeronautical Center	3,436	3,440
Alaskan	844	840
Central	1,962	1,950
Eastern	4,303	4,286
Great Lakes	5,095	5,092
New England	1,275	1,263
Northwest Mountain	3,849	3,842
Southern	6,232	6,180
Southwest	4,608	4,569
Western-Pacific	4,290	4,271
Washington Headquarters	8,603	8,682
Technical Center	728	727
Grand Total	45,225	45,142

Source: AHP-200; 202-267-2830

Data pulled from 2017 and 2018 Pay Period: 3

Full-Time, Permanent Employees Only;

As of February 23, 2018

FAA Workforce Demographics: Minorities and Non-Minorities (Line of Business and Location)

	2016		2017	
Line of Business	Minority	Non-Minority	Minority	Non-Minority
Air Traffic Organization (ATO)	16.24%	83.76%	16.5%	83.5%
Airports (ARP)	19.24%	80.76%	19.7%	80.3%
Aviation Safety (AVS)	15.87%	84.13%	15.9%	84.1%
Commercial Space Transportation (AST)	15.79%	84.21%	16.3%	83.7%
Security & Hazardous Materials Safety (ASH)	23.22%	76.78%	23.2%	76.8%
Staff Offices	22.18%	77.82%	22.3%	77.7%
Grand Total	17.00%	83.00%	17.2%	82.8%
Location (Region/Center)	Minority	Non-Minority	Minority	Non-Minority
Aeronautical Center	16.50%	83.50%	16.9%	83.1%
Alaskan	13.63%	86.37%	13.7%	86.3%
Central	10.70%	89.30%	10.8%	89.2%
Eastern	14.46%	85.54%	14.7%	85.3%
Great Lakes	8.87%	91.13%	9.0%	91.0%
New England	7.61%	92.39%	7.5%	92.5%
Northwest Mountain	11.51%	88.49%	11.5%	88.5%
Southern	20.47%	79.53%	20.9%	79.1%
Southwest	19.57%	80.43%	19.6%	80.4%
Western-Pacific	24.64%	75.36%	25.1%	74.9%
Washington Headquarters	21.36%	78.64%	21.6%	78.4%
Technical Center	14.97%	85.03%	15.0%	85.0%
Grand Total	17.00%	83.00%	17.2%	82.8%

Source: AHP-200; 202-267-2830

Data pulled from 2017 and 2018 Pay Period: 3

Full-Time, Permanent Employees Only

As of February 23, 2018

FAA Workforce Demographics: Female and Male (Line of Business and Location)

	20	16	20	17
Line of Business	Female	Male	Female	Male
Air Traffic Organization (ATO)	19.16%	80.84%	19.2%	80.8%
Airports (ARP)	38.48%	61.52%	38.8%	61.2%
Aviation Safety (AVS)	25.84%	74.16%	25.7%	74.3%
Commercial Space Transportation (AST)	32.63%	67.37%	31.6%	68.4%
Security & Hazardous Materials Safety (ASH)	39.92%	60.08%	39.6%	60.4%
Staff Offices	44.46%	55.54%	44.5%	55.5%
Grand Total	23.78%	76.22%	23.8%	76.2%
Line of Business	Female	Male	Female	Male
Aeronautical Center	34.14%	65.86%	34.2%	65.8%
Alaskan	19.19%	80.81%	19.4%	80.6%
Central	20.44%	79.56%	20.2%	79.8%
Eastern	17.94%	82.06%	18.0%	82.0%
Great Lakes	17.08%	82.92%	17.1%	82.9%
New England	21.10%	78.90%	21.1%	78.9%
Northwest Mountain	23.02%	76.98%	22.9%	77.1%
Southern	19.77%	80.23%	19.9%	80.1%
Southwest	19.60%	80.40%	19.4%	80.6%
Western-Pacific	20.28%	79.72%	20.2%	79.8%
Washington Headquarters	34.91%	65.09%	34.9%	65.1%
Technical Center	29.12%	70.88%	29.2%	70.8%
Grand Total	23.78%	76.22%	23.8%	76.2%

Source: AHP-200; 202-267-2830

Data pulled from 2017 and 2018 Pay Period: 3 Full-Time, Permanent Employees Only;

As of February 23, 2018

Labor Relations Bargaining Units Labor Agreements Employees Represented

	Bargaining Units	Labor Agreements	Employees Represented
Unions	33	15	34,912
AFGE	4	3	1,547
AFSCME (HQ)	1	1	2,342
LIUNA	1	1	165
NAGE	2	2	173
NATCA	15	3	19,173
NFFE	3	1	607
PAACE	2	2	311
PASS	5	2	10,594
Unrepresented			892
Nonbargaining			9,130
	=	Total employees:	44,934
AFGE	American Federatio	n of Government Er	nployees
AFSCME	American Federatio	on of State, County a	nd Municipal Employees
LIUNA	Laborers' Internation	onal Union of North	America
NAGE	National Association of Government Employees		
NATCA	National Air Traffic Controllers Association		
NFFE	National Federation of Federal Employees		
PAACE	Professional Association of Aeronautical Center Employees		
PASS	Professional Aviation Safety Specialists		
Source:	Office of Human Resource Management (AHR): AHL-400		
	As of February 3, 2018		

Air Traffic-related Facilities

Airports	19,601
Public Airports	5,116
Private Airports	14,485
ATC Towers	521
Federal	268
Contract	253
TRACONS	160
Stand-Alone	27
Combined ATC Towers	132
RAPCON	1
En Route Centers	25
ARTCC	21
**CERAP/CCF	4

Source: OPSNET, Office of Performance Analysis (AJR-G)

RAPCON (Radar Approach Control)

CCF (Combined Control Facility)

^{**}CERAP (Center Radar Approach Control)

Recently Published Rulemaking Documents

Recently published rulemaking documents can be found on the FAA website at the link below.

https://www.faa.gov/regulations_policies/rulemaking/recently_published/